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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/632,514 | 08/01/2003 | Andrew P. Ritter | AVX-202-CIP | 4340 |
| 22827 | 7590 | 08/16/2004 | EXAMINER | |
| DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449 | | | TALBOT, BRIAN K | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1762 | |
| DATE MAILED: 08/16/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|---------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/632,514 | RITTER ET AL. | |
| | Examiner | Art Unit | |
| | Brian K Talbot | 1762 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 21-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/22/03;1/15/04</u> | 6) <input type="checkbox"/> Other: _____ |

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1. Applicant's election without traverse of Group I, claims 1-20, in the reply filed on 6/1/04 is acknowledged. Claims 21-41 have been withdrawn as being directed toward a non-elected invention and should be canceled in response to this Office Action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3-5 and 8-11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Maher (4,811,162) or McLoughlin et al. (6,232,144)

Maher (4,811,162) teaches capacitor end termination composition and method. The end termination layer can be applied by electroless plating of nickel from 30-50 minutes to produce a thickness of from 1-4 microns (col. 4, lines 9-17 and Figures).

McLoughlin et al. (6,232,144) teaches nickel barrier end termination and method. Nickel end termination can be applied by electroless plating from 15 minutes to 20 minutes to produce a thickness of from 1-3 microns. A platinum layer can be applied as a pretreatment step prior to the nickel plating (Figures and col. 3, line 1 – col. 4, line 60).

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuzuki et al. (6,310,757) in combination with McElroy et al. (3,992,761).

Tuzuki et al. (6,310,757) teaches an electronic component having external electrodes and method of manufacturing. Tuzuki et al. (6,310,757) teaches manufacturing an electronic component with an activation treatment with palladium prior to electrolytic plating of nickel (abstract). A pretreatment step can be performed prior to the activation step to remove oxides from the conductive surfaces. Finally electrolytic plating is performed to form the electrodes

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(col. 3, lines 48-67). The plating time ranges from 10-30 minutes to form a thickness ranging from less than 1 micron to 3 microns (see Table 1 and 2)

Tuzuki et al. (6,310,757) fails to teach electroless plating the external electrodes instead of electrolytic plating.

McElroy et al. (3,992,761) teaches making a multi-layer capacitor whereby external electrodes are formed by electroless plating of nickel or copper (Fig. 1 and col. 4, lines 44-49).

Claims 2,6,7 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maher (4,811,162) or McLoughlin et al. (6,232,144) in combination with Tuzuki et al. (6,310,757).

Maher (4,811,162) teaches capacitor end termination composition and method. The end termination layer can be applied by electroless plating of nickel from 30-50 minutes to produce a thickness of from 1-4 microns (col. 4, lines 9-17 and Figures).

McLoughlin et al. (6,232,144) teaches nickel barrier end termination and method. Nickel end termination can be applied by electroless plating from 15 minutes to 20 minutes to produce a thickness of from 1-3 microns. A platinum layer can be applied as a pretreatment step prior to the nickel plating (Figures and col. 3, line 1 – col. 4, line 60).

Maher (4,811,162) or McLoughlin et al. (6,232,144) fail to teach a contact time of less than 15 minutes and a cleaning step.

Tuzuki et al. (6,310,757) teaches a contact time of less than 10 minutes and a cleaning step prior to activation.


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Therefore, it would have been obvious at the time the invention was made to have modified Maher (4,811,162) or McLoughlin et al. (6,232,144) to incorporate the coating time and pretreatment step as evidenced by Tuzuki et al. (6,310,757) with the expectation of achieving similar results.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 8/10/04
Brian K Talbot
Primary Examiner
Art Unit 1762

BKT